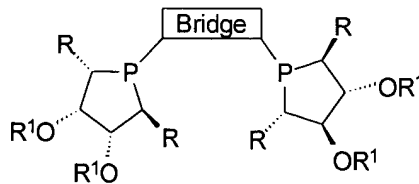
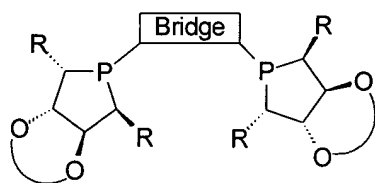


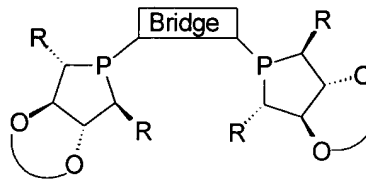
A



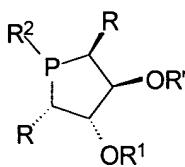
A'



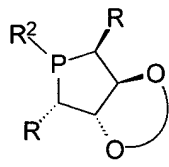
B



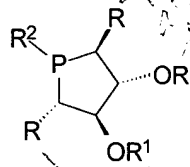
B'



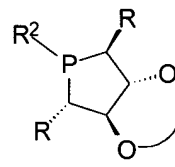
C



D



C'



D'

wherein:

- R and R<sup>2</sup> are independently aryl, alkyl, alkyl aryl, aryl alkyl, or chiral oxazolino which may be substituted with carboxylic acid, alkoxy, hydroxy, alkylthio, thiol or dialkylamino groups;
- R<sup>1</sup> can be H, alkyl, silane, aryl, a water soluble unit, or a linked polymer chain or inorganic support; and
- Bridge may be:

$-(CH_2)_n-$  where  $n$  is an integer ranging from 1 to 8;

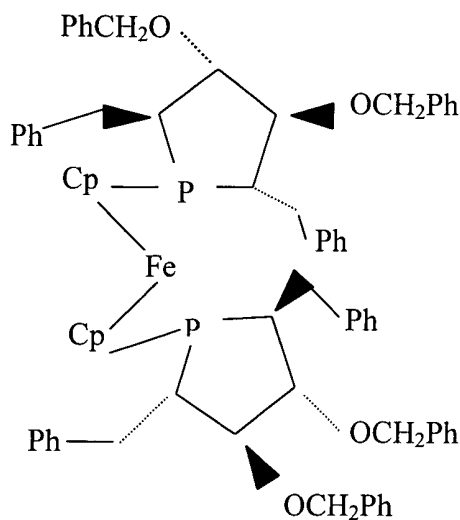
$-(CH_2)_nX(CH_2)_m-$  wherein  $n$  and  $m$  are each integers, the same or different, ranging from 1 to 8, and  $X$  is O, S,  $NR^4$ ,  $PR^4$ ,  $AsR^4$ ,  $SbR^4$ , divalent aryl, divalent fused aryl, divalent 5-membered ring heterocyclic group, or divalent fused heterocyclic group, wherein  $R^4$  is aryl, alkyl, substituted aryl, or substituted alkyl; or

1,2-divalent phenyl, 2,2'-divalent 1,1'-biphenyl or 2,2'-divalent 1,2'-binaphthyl or ferrocene, each of which may be substituted with aryl, C1-C8 alkyl, F, Cl, Br, I,  $COOR^5$ ,  $SO_3R^5$ ,  $PO_3R^5$ ,  $OR^5$ ,  $SR^5$ ,  $NR^5$ ,  $PR^5$ ,  $AsR^5$ , or  $SbR^5$ ;

wherein the substitution on 1,2-divalent phenyl, the ferrocene or biaryl bridge can be independently halogen, alkyl, alkoxyl, aryl, aryloxy, nitro, amino, vinyl, substituted vinyl, alkynyl, or sulfonic acids; and

$R^5$  is hydrogen, C1-C8 alkyl, C1-C8 fluoroalkyl, or C1-C8 perfluoroalkyl, aryl; substituted aryl; arylalkyl; ring-substituted arylalkyl; or  $-CR^3_2(CR^3_2)_qX(CR^3_2)_pR^1$  wherein  $q$  and  $p$  are integers, the same or different, ranging from 1 to 8;  $R^3$  is aryl, alkyl, substituted aryl, or substituted alkyl; and  $X$  is as defined above.

34. (Amended) A catalyst according to claim 23, wherein said chiral compound is represented by the following formula:



**L8 (A')**